Element:	Incall Service
Attributes:	title
Children:	Service
Description:	A container. A high level tag that marks the start and end of the XML file. Required.
Element:	Service
Attributes:	name
Parents:	Incall Service
Children:	DNIS | Service_description | Multicall | Percall | Reset
Description:	A container. The parameters in this container describe a service running on a particular phone line (DNIS). Each line running Incall Service must have a service described for that line. Required.
Element:	DNIS
Parents:	Service
Description:	The number the caller dialed to reach the application. Required.
Element:	Service_description
Parents:	Service
Description:	Audio. The description of the service. This audio is played to reassure the caller that they have dialed the right number. Fits the carrier phrase, "Hello. You have reached <System_description>." Required.
Element:	Multicall
Parents:	Service
Children:	Call_info | Authentication | Content | Choices | Value_entry
Description:	A container. The parameters specified in Multicall are to be used as default values for all the calls for the service specified in Service. Any tag may be specified in Multicall. Parameters set here act as default values for all calls for that service until another Multicall file for that service is specified. Optional.
Element:	Percall
Parents:	Service
Children:	Call
Description:	A container. Contains the list of calls to be made, one call per Call tag. Required if no Multicall tag specified.
Element:	Call
Attributes:	id
Parents:	Percall
Children:	Call_info | Authentication | Content | Choices | Value_entry | Reset
Description:	A container. Contains information for a specific call. Required if there is a Percall tag.

Element:	Reset
Parents:	Service | Call
Description:	Resets/Cancels a particular call (if used as a child for Call) or all potential calls for a particular service (if used as a child for Service). Optional.
Element:	Call_info
Parents:	Multicall | Call
Children:	Phone_number | Response_url
Description:	A container. Contains information about the call, beyond the dialog. Required in either Multicall or Call or both.

FIG. 9A

Element:	Authentication
Parents:	Multicall | Call
Children:	Authentication_code_description | Authentication_code | Expected_caller
Description:	A container. Contains tags that specify the information necessary for ensuring that the caller is authorized to use the service. Authentication is indicated if there is an authentication_code passed in from the customer's application. If there is an authentication_code, there must also be a description of that code. Optional.
Element:	Content
Parents:	Multicall | Call
Description:	Audio. The content message to be played to the caller. The content may be an audio file (*.wav), a text file (*.txt), or raw text (enclosed in double quotes.) Optional.
Element:	Value_entry
Parents:	Multicall | Call
Attributes:	mindigits | maxdigits
Description:	Audio. A description of the entry to be entered by the called party. Must fit carrier phrase, "Please enter…" and "You will be asked for…" Either Choices or Value_entry, but not both, may be specified. Optional.
Element:	Choices
Parents:	Multicall | Call
Children:	Choice | Transfer
Description:	A container. Contains information about the list of choices that will be presented to the caller during the call. Optional.
Element:	Phone_number
Parents:	Call_info
Description:	Phone number from which Expected_caller is expected to call. Required.
Element:	Expected_caller
Parents:	Authentication
Description:	Audio. The name of the person expected to be calling from a given phone number. Optional.

Element:	Response_url
Parents:	Call_info
Description:	URL that Incall Service is to use to return status information about the call to the customer application. Optional.
Element:	Authentication_code_description
Parents:	Authentication
Description:	Audio. Description of the authentication code the caller will be asked to enter. Fits the carrier phrase, "Please enter <authentication_code_description>." For example, "Please enter your account number." Required for each Authentication tag.

FIG. 9B

Element:	Authentication_code
Parents:	Authentication
Description:	The digit string value of the caller's authentication_code_description. That is, the Authentication_code is the value that the caller must enter in order to continue with the call. Required for each Authentication tag.
Element:	Choice
Parents:	Choices
Children:	Choice_description	Choice_value
Description:	A container. Describes the choices that are available to the caller. There is usually more than one Choice tag per Choices tag. Optional.
Element:	Transfer
Parents:	Choices
Children:	Transfer_description	Transfer_number
Description:	A container. Describes the transfer option available to the caller. If there is a transfer option, the value that the caller presses is "0" in order to transfer. Only one Transfer tag is allowed per Choices tag. Optional.
Element:	Choice_description
Parents:	Choice
Description:	Audio. Describes the option the caller may choose. Fits the carrier phrase, "If you would like <choice_description>, press one." Required for each Choice tag.
Element:	Choice_value
Parents:	Choice
Description:	A single digit number that indicates the touch-tone that the caller should press in order to select the associated choice. Note that if there is a Transfer tag, "0" cannot be used for a Choice_value. Required for each Choice tag.
Element:	Transfer_description
Parents:	Transfer
Description:	Audio. Describes the person or thing (e.g., IVR) the caller would be transferred to should they press zero. Required for each Transfer tag.
Element:	Transfer_number
Parents:	Transfer
Description:	The phone number to which the caller would be transferred, if they press zero. Required for each Transfer tag.

FIG. 9C

Element:	Outcall service
Attributes:	title
Children:	Multicall | Percall
Description:	A container. A high level tag to mark the start and end of the XML file. Required.

Element:	Service
Attributes:	name
Parents:	Outcall service
Children:	Service_description | Multicall | Percall | Reset
Description:	A container. The parameters in this container describe a service. There can be several services set up for Outcall. This tag allows the developer to group Multicall values. Required.

Element:	Multicall
Parents:	Service
Children:	Call_info | Introduction | Authentication | Content | Value_entry | Choices
Description:	A container. Indicates that the parameters specified are to be used as default values for all the calls. Any tag may be specified in multicall. Parameters set here act as default values for all calls until another multicall file is specified. Optional.

Element:	Percall
Parents:	Service
Children:	Call
Description:	A container. Contains the list of calls to be made, one call per Call tag. Required if no Multicall tag specified.

Element:	Reset
Parents:	Service | Call
Description:	Resets values for parent tag and all its children tags already specified. Useful for canceling queued calls before they're made. Optional.

Element:	Call
Attributes:	id
Parents:	Percall
Children:	Call_info | Introduction | Authentication | Content | Value_entry | Choices | Reset
Description:	A container. Contains information for a specific call. Required if there is a Percall tag.

Element:	Call_info
Parents:	Multicall | Call
Children:	Phone_number | Response_url | Ensure_completion
Description:	A container. Contains information about the call, beyond the dialog. Required in either Multicall or Call or both.

Element:	Introduction
Parents:	Multicall | Call
Children:	Recipient | Sender
Description:	A container. Contains the information for the introduction portion of the call, the sender and the desired recipient. Required in either Multicall or Call or both.

FIG. 12A

Element:	Authentication
Parents:	Multicall|Call
Children:	Authentication_code_description|Authentication_code
Description:	A container. Contains tags that specify the information necessary for ensuring that the called party is the intended recipient of the call. Optional. Authentication is indicated if there is an authentication_code passed in from the customer's application. If there is an authentication_code, there must also be a description of that code and a recipient.

Element:	Content
Parents:	Multicall |Call
Description:	Audio. The content message to be played to the called party. The content may be an audio file (*.wav), a text file (*.txt), or raw text (enclosed in double quotes.) Optional.

Element:	Value_entry
Parents:	Multicall | Call
Attributes:	mindigits | maxdigits
Description:	Audio. A description of the entry to be entered by the called party. Must fit carrier phrase, "Please enter..." and "You will be asked for..." Either Choices or Value_entry, but not both, may be specified. Optional.

Element:	Choices
Parents:	Multicall | Call
Children:	Choice | Transfer
Description:	A container. Contains information about the list of choices that will be presented to the user during the call. Either Choices or Value_entry, but not both, may be specified. Optional.

Element:	Phone_number
Parents:	Call_info
Description:	Phone number to be called. Must include every digit that is to be dialed (e.g., 9 to get an outside line, 1 for long distance). Required.

Element:	Response_url
Parents:	Call_info
Description:	URL that Outcall service is to use to return status information about the call to the customer application. Optional.

Element:	Ensure_completion
Parents:	Call_info
Description:	The number of times that Outcall service will call a person back, if the person has authenticated. These callbacks increase the likelihood of the completion of a desired call that was dropped accidentally (for instance, by the network). Optional. Default is 0.

Element:	Recipient
Parents:	Introduction
Description:	Audio. Usually text to be converted to speech. Fits the carrier phrase, "This is an automated call for <Recipient> from <Sender>." If Recipient is omitted from the XML, no authentication is done; rather, the called party is asked to press 1 to continue. Optional.

Element:	Sender
Parents:	Introduction
Description:	Audio. Fits the carrier phrase, "This is an automated call from <Sender>." Required.

Element:	Authentication_code_description
Parents:	Authentication
Description:	Audio. Description of the authentication code the called party will be asked to enter. Fits the carrier phrase, "Please enter <authentication_code_description>." For example, "Please enter your account number." Required for each Authentication tag.

FIG. 12B

Element:	Authentication_code
Parents:	Authentication
Description:	The digit string value of the called party's authentication_code_description. That is, the Authentication_code is the value that the called party must enter in order to continue with the call. Required for each Authentication tag.

Element:	Choice
Parents:	Choices
Children:	Choice_description | Choice_value
Description:	A container. Describes the choices that are available to the called party. There is usually more than one Choice tag per Choices tag. Optional.

Element:	Transfer
Parents:	Choices
Children:	Transfer_description | Transfer_number
Description:	A container. Describes the transfer option available to the called party. If there is a transfer option, the value that the called party presses is "0" in order to transfer. Only one Transfer tag is allowed per Choices tag. Optional.

Element:	Choice_description
Parents:	Choice
Description:	Audio. Describes the option the called party may choose. Fits the carrier phrase, "If you would like <choice_description>, press one." Required for each Choice tag.

Element:	Choice_value
Parents:	Choice
Description:	A single digit number that indicates the touch-tone that the called party should press in order to select the associated choice. Note that if there is a Transfer tag, "0" cannot be used for a Choice_value. Required for each Choice tag.

Element:	Transfer_description
Parents:	Transfer
Description:	Audio. Describes the person or thing the called party would be transferred to should they press zero. Required for each Transfer tag.

Element:	Transfer_number
Parents:	Transfer
Description:	The phone number to which the called party would be transferred, if they press zero. Required for each Transfer tag.

FIG. 12C